IFW

## **CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as FIRST CLASS MAIL in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 6, 2004.

Signatura: Rebecca A. Baumann

OIPE COS

**PATENT** 

Attorney Docket No. AMK-11317-1D

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application	) PATENT APPLICATION
Inventor(s): David Albert Zoba	)
A 1' .' N 10/551 050	) Art Unit: 2815
Application No.: 10/771,072	) Examiner: Tom Thomas
Filed: 2/2/2004	) Examiner: Toni Thomas
	)
Title STRUCTURES FOR IMPROVING HEAT	)
DISSIPATION IN STACKED	)
SEMICONDUCTOR PACKAGES	)
	)

## **INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Listed below or on an attached Form PTO-1449 is information known to applicant(s). A copy of each listed publication and non-U.S. patent, is being submitted herewith, along with a concise explanation of information in a foreign language, if any, pursuant to 37 C.F.R. §1.97-1.98.

Applicants respectfully request that the listed information be considered by the Examiner and be made of record in the above-identified application. If form PTO-1449 is enclosed, the Examiner is requested to initial and return it in accordance with MPEP § 609.

This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56.

SN: 10/771,072

$\boxtimes$	This statement qualifies under 37 C.F.R. § 1.97, subsection (b) because (check all that apply):						
		(1)	It is being filed within 3 months of the a continued prosecution application OR	•			
		(2)	It is being filed within 3 months of entry	of a national stage			
	$\boxtimes$	(3)	It is being filed before the mail date of the OR	ne first Office Action on the merits.			
		(4)		irst Office Action after the filing of a request for 1.114			
	37 C.F.R. § 1.97(c). If this statement is being filed after the period specified in § 1.97(b), but before the mailing date of the earlier of a final office action under § 1.113, a notice of allowance under § 1.311, or an action that otherwise closes prosecution in the application, then:						
		a certification as specified in § 1.97(e) is provided below; or					
			of \$180.00 as set forth in § 1.17(p) is authornt of other papers filed together with this	rized below, enclosed, or included with the statement.			
	37 C.F.R. § 1.97(d). If this statement is being filed after the period specified in § 1.97(c), but o payment of the issue fee, then:						
	A.	a certif	fication as specified in § 1.97(e) is comple	ted below; and			
	B.		of \$180.00 as set forth in § 1.17(p) is authornt of other papers filed together with this	rized below, enclosed, or included with the statement.			
	Fee Authorization. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment associated with this communication to Deposit Account No. 50-0574 (Docket No. AMK-11317-1D).						
			Respect	fully submitted,			
		,	BEVER	, HOFFMAN & HARMS, LLP			
Dated:	_8	16/	By:	nes E. Parsons, Rég. No. 34,691			
-	one: (40 ier No. 2	8) 451-5 22888	5906				

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Action of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Application Number 10/771,072 Substitute for form 1449A/P/TO AUG 1 1 2004 Filing Date 2/2/2004 INFORMATION DISCLOSURES First Named Inventor: David Albert Zoba STATEMENT BY APPLICANT Examiner: Tom Thomas **GROUP: 2815** (Use as many sheets as necessary) of Sheet 3 Attorney Docket Number AMK-11317-1D U.S. PATENT DOCUMENTS Examiner Cited Document Number **Publication Date** Name of Patentee or Pages, Columns, Lines Initials\* No. 1 Number - Kind Code 2(if km) MM-DD-YYYY Applicant of Cited Document Where Relevant Passages or Figures Appear A01 US-5,041,902 08/1991 McShane A02 US-5,328,870 07/1994 Marrs A03 US-5,355,283 10/1994 Marrs et al. A04 US-5,381,042 01/1995 Lerner et al. A05 US-5,455,462 10/1995 Marrs A06 US-5,471,011 11/1995 Maslakow A07 US-5,478,007 12/1995 Marrs A08 US-5,482,898 01/1996 Marrs A09 US-5,485,037 01/1996 Marrs A10 US-5,583,378 12/1996 Marrs et al. A11 US-5,616,957 04/1997 Kajihara A12 US-5,629,561 05/1997 Shin et al. FOREIGN PATENT DOCUMENTS Examiner Cite Publication Pages, Columns, Lines Initials\* No. 1 Foreign Patent Document Date Name of Patentee or Where Relevant MM-DD-Applicant of Cited Passages or Figures Тé Cntry Code<sup>3</sup> Number<sup>4</sup> Kind Code<sup>5</sup> (fknown) YYYY Document Appear OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) **EXAMINER SIGNATURE:** DATE CONSIDERED:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional), 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible, 6 Applicant is to place a check mark here if English language Translation

is attached.
This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, cell 1-800-PTO-9199 (1-800-786-9199) and select option 2. "EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-03)

٩

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Action of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1440A /DTO		A	Application Number		10/771,072						
Substitute for form 1449A/PTO			F	Filing Date		2/2/2004					
INFORMATION DISCLOSURE STATEMENT BY APPLICANT					F	First Named Inventor:		David Albert Zoba			
(Use as many sheets as necessary)				E	Examiner: Tom Thomas		GROUP: 2815				
Sheet	t 2 of 3						Attorney Docket Number		AMK-11317-1D		
U.S. PATENT DOCUMENTS											
Examiner Initials*	Cited No. 1	No. 1 Number - Kind Code			ber e <sup>2(if known)</sup>		ublication Date IM-DD-YYYY			Pages, Columns, Lines Where Relevant Passages or Figures Appear	
	A13	US-5,650,593					07/1997	McMillan et	al.		
	A14	US-5,650,663					07/1997	Parthasarathi			
	A15	US	US-5,701,034				12/1997	Marrs			
	A16	US	US-5,708,567				01/1998	Shim et al.			
	A17	US	US-5,722,161				03/1998	Marrs			
	A18	US	US-5,723,899				03/1998	Shin	<del>-</del>		
	A19	US	US-5,783,860				07/1998	Jeng et al.			
	A20	US	US-5,807,768 US-5,854,511				09/1998	Shin Shin et al.			
	A21	US					12/1998				
	A22					07/1999 Asano et al.					
	A23			514			07/1999 Yalamanchili				
	A24	24 US-5,977,626				11/1999	Wang et al.		- v		
	A25	US-	US-5,985,695				11/1999	Freyman et al.			
					FOR	REIC	ON PATENT DO	OCUMENTS			
Examiner Initials*	Cite No. 1						Publication Date Name of Patentee of MM-DD- Applicant of Cited		t of Cited	Pages, Columns, Lines Where Relevant Passages or Figures Appear	T <sup>6</sup>
	Citaly Code Patrick Kind Code				2000		тррош	=			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)											
EXAMINE	R SIG	NATU	RE:					DATE CONS	SIDERED:		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application. The USPTO. The will vary depending upon the individual case. Any comments on the complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2. "EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor mu

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Action of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Application Number 10/771,072 Substitute for form 1449A/PTO Filing Date 2/2/2004 INFORMATION DISCLOSURE First Named Inventor: David Albert Zoba STATEMENT BY APPLICANT Examiner: Tom Thomas GROUP: 2815 (Use as many sheets as necessary) **Attorney Docket Number** AMK-11317-1D 3 of 3 Sheet **U.S. PATENT DOCUMENTS Publication Date** Name of Patentee or Pages, Columns, Lines Cited **Document Number** Examiner Number - Kind Code 2/15 kmc MM-DD-YYYY Applicant of Cited Document Where Relevant Passages or No. Initials\* Figures Appear A26 US-6,008,991 07/1997 Hawthorne et al. 02/2000 Hoffman A27 US-6,028,354 03/2000 Cheah et al. A28 US-6,040,626 05/2000 A29 Bernier et al. US-6,069,023 07/2000 Tao et al. A30 US-6,093,960 12/2000 Masaki A31 US-6,166,446 03/2001 Crowley et al. A32 US-6,198,163 A33 US-6,229,204 05/2001 Hembree 05/2001 Tao et al. A34 US-6,229,702 07/2001 Niones et al. A35 US-6,258,629 06/2002 Huang et al. A36 US-6,400,014 A37 US-2002/0109226 08/2002 Khan et al. FOREIGN PATENT DOCUMENTS Examiner Cite Publication Pages, Columns, Lines Where Relevant Initials\* No. 1 Foreign Patent Document Date Name of Patentee or Т<sup>6</sup> MM-DD-Applicant of Cited Passages or Figures Cntry Code<sup>3</sup> Number<sup>4</sup> Kind Code<sup>5</sup> (if known) YYYY Document Appear OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) DATE CONSIDERED: EXAMINER SIGNATURE:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Standard document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attended.

is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 [1-800-766-9199] and select option 2. "EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible, 6 Applicant is to place a check mark here if English language Translation is attached.